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**ADAPTATION OR REVERSAL:
POLICIES FOR THE QUALITY OF LIFE IN THE
ECONOMICALLY DECLINING PARTS OF MONTANA, NORTH DAKOTA
AND WYOMING**

A Report By

THE OLD WEST REGIONAL COMMISSION

Prepared by:
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Berkeley, California

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Prepared for
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SUMMARY

The decline of many rural areas and small towns within the Montana, North Dakota, Wyoming portion of the Old West Region is in substantial measure an adjustment to overpopulation resulting from a series of agricultural and mining booms dating to the late 19th century. It is also an adjustment to increasing urbanization in some of the centers within the region, as a result of increases in productivity, spending power, and mobility, whereby the growing trade and service areas of selected centers supplant the functions of lesser ones. Thus, population decline over much of the area is the natural complement of the growth of the larger trade and service centers.

There is a lesson in the long experience of rapid growth and subsequent decline for those portions of the region now experiencing a boom associated with the development of natural resources. If the present growth is not to lead to another such cycle, careful management and preventive measures are indicated.

The problems of growth and those of decline are not equally shared, and are especially felt by the elderly and American Indian portions of declining area populations. The poor are not unusually numerous in the region, but their problems are hard to treat through conventional urban oriented institutions because so many of them are dispersed among small, declining towns and rural areas with extremely limited community resources and an eroding service base.

By contrast to the usual economic development strategies, a new approach to regional growth management is therefore proposed for this area, which would make available a flexible package of measures for growth stimulation, growth moderation and for adaptation to local decline. Its major elements would include a diagnostic procedure for local area conditions, an "early warning" system for quick detection of adjustment problems in key areas and industries (and support of services such as schools or health) and a priority assignment system for regional actions according to current needs, desires, and capacity for adjustment in local areas. Measures such as industrial development, manpower development, labor relocation, professional recruitment and institutional support measures would be incorporated in a coordinated growth management strategy.

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ADAPTATION OR REVERSAL: POLICIES FOR THE QUALITY OF LIFE IN THE ECONOMICALLY DECLINING PARTS OF MONTANA, NORTH DAKOTA AND WYOMING.

INTRODUCTION

This brief study, conducted for the Old West Regional Commission, sets out to contrast two seemingly opposed policies for areas of declining economy and population: one, the conventional one, is to stimulate enough new growth to stop or reverse the process of decline; the other, to accept the inevitability of this decline for many areas, but try to separate quantitative decline from decline in the quality of life.

Our review of the general literature on regional development and the specifics of North Dakota, Montana, and Wyoming leads us to several conclusions:

- (1) that population decline is inevitable over much of this territory, and that policies that set out to reverse this process will be ineffective and wasteful.
- (2) that accepting quantitative decline does not mean accepting qualitative decline, and that many steps may be taken in this direction.
- (3) that adaptation to decline and reversal strategies are not simple alternatives. Rapid growth, in the situation of this region, often carries the seeds of the problems of decline a decade or so down the road. On the other hand, adapting to decline may require the development of new jobs in selected activities and places.

The pages which follow give more details on these propositions and the appended bibliographies may be helpful to those who want to go more deeply into the subject. But the essential point is that growth and decline are not simple alternatives. Each has elements of the other, and ultimately the question is not one of either one or the other, but how much of each, and how, and where, and for whom. The need, in other words, is for growth management policies and procedures which respond to area-wide needs but are sensitive to unique local situations and values.

Our analysis in the following pages is only a first exploration of these issues. This is partly due to the limits of our time and resources. More fundamentally, it is because the diagnosis of the problems can be aided but cannot be fully determined by outside professional analysis. Ultimately only the very people directly involved, those living in the region, can speak to the problems. For instance, what to an outsider may seem a matter of labor supply and relative wages, may be to a community the loss of the best-prepared of its young. Professional diagnoses are from the outside and must be supplemented by diagnosis from the inside.

It is in this sense that this report has been written and in which we ask that it be read.

THE DYNAMICS OF LOCAL ECONOMIC DECLINE

A region, such as the Old West, wrestling with the problems of decline, will tend to view economic growth as a welcome remedy. But every region which is declining today is so doing because the momentum of some earlier growth carried it to levels it could not sustain. Today, therefore, when the region is faced both with the problems of many areas declining while some areas boom, it must take a long run view of the interdependence of growth and decline.

The declining urban and rural areas of the Old West region have much in common with declining areas in other parts of the United States, areas which at one time enjoyed a specialized but transitory advantage in national and world markets, which were hastily developed to exploit that advantage alone, and which reached a rate of population growth the local economy could not match. There typically follows a long, sometimes painful period of incomplete adjustment to bring population into balance with a stable or declining labor demand, or to develop alternate sources of economic growth. This adjustment is resisted by a complex of seemingly perverse economic, social, and political forces, resulting in a persistent surplus of unskilled labor but an equally persistent shortage of professional, technical, and entrepreneurial personnel and services.

A general model of the process of local decline has been suggested by Rust (1) in the sequence of stages outlined below.

(1) Prior Growth Conditions Conducive to Decline

- (a) Unusual advantage, national demand, dependency: non-local re-investment of profits and savings.
- (b) Rapid economic growth in sector of advantage: increasing specialization (mix effect and deterrence).
- (c) Rapid population growth accumulates a highly mobile and fertile population.

(2) Advantage Passes, Job Growth Stops

(3) Shadow Boom

- (a) Migration adjusts labor force; population grows due to births; income falls; service sector weakens.

(4) Primary Decline

- (a) Employment falls: mix and multiplier effects.
- (b) Migrant offspring reach working age, seek jobs.
- (c) Unemployment, underemployment.

(1) Rust, Edgar, "Metropolitan Areas Without Growth," A report to the Center for Population Research, National Institutes of Health, Bethesda, by Scientific Analysis Corporation, November 1, 1974, under contract 1-HD-42806.

- (d) Rapid outmigration, especially skilled and professionals (also criminals).
- (5) Inelastic Decline
 - (a) Employment falls, population cannot adjust fast enough.
 - (b) Migrant pool depleted: low outmigration rate.
 - (c) Chronic unemployment.
 - (d) Permanent labor surplus attracts "parasitic" industries in declining areas: low-wage, low-skill, routinized manufacturing in branch plants.
 - (e) Downward social mobility: supply pressure on lower-level occupations.
- (6) Stabilization
 - (a) Population from boom ages enough to pass out of labor force, removes surplus.
 - (b) Former boom industry stabilizes or disappears, replaced largely by branches of non-local firms.
 - (c) Routine outmigration of youth, especially the best-educated.
 - (d) Permanently depleted professional and technical service sector, inflated low-wage service sector.
 - (e) High vulnerability to second round of obsolescence and decline.

A preliminary analysis suggests that examples of every stage of the decline process may be found within the three-state area. The counties of the area are classified according to their year of highest population in Table 1. Forty-two declining counties peaked more than fifty years ago, approximately the time required for a boom-swollen work force to lose its surplus of older workers through natural aging. Thirty-eight counties peaked in 1930 or 1940 and are likely to be in the inelastic decline phase. The thirty counties which peaked in the 1950's and 1960's may be in the primary or inelastic phase depending upon the duration and severity of decline in individual cases.

It would clearly be valuable to identify which of the 23 growing counties may be in the "shadow-boom" phase of temporary accommodation to retarded economic growth so that preparations can be made for adjustment measures. To do so, more detailed analyses of local growth history, demographic structure, and employment trends will be necessary, but a positive diagnosis is basically feasible and fairly simple.

TABLE 1
NUMBER OF COUNTIES OF MONTANA, NORTH DAKOTA AND WYOMING BY
YEAR OF MAXIMUM POPULATION

	Number of Counties by Year of Maximum Population				
	1970	1950 or 1960	1930 or 1940	1910 or 1920	Before 1900
Montana	11	16	11	16	3
North Dakota	7	3	25	18	2
Wyoming	5	11	2	3	0
3 State Total	23	30	38	37	5

Source:

U.S. Census Map GE-50 No. 37, Year of Maximum Population
by Counties of the U.S., 1970.

Perhaps most critical of all, in terms of the potential value of corrective action, will be to identify the areas in which the preconditions of decline exist. Here the diagnosis is at best a shading of probabilities among alternative possible outcomes. An initial rating of vulnerable areas based upon growth conditions in the key industries will be fairly simple. The cost of further specification of risk based upon economic analysis and projection, however, must be traded off against the alternative approach of simply monitoring local conditions so that dislocations can be detected rapidly, and maintaining contingency plans which can be implemented on short notice to moderate their effects.

THE EXTENT OF LOCAL NON-GROWTH IN MONTANA, NORTH DAKOTA, AND WYOMING

Most of the physical territory of the three states declined in population (2) in the last decade: 109 of their 132 counties. Just half of the three states' population lived in the 23 growing counties. The 109 counties losing population contained 39.9% of Montana's people, 57.1% of North Dakota's, and 50.2% of Wyoming's as of 1970 (Table 2).

The growing counties, with very few exceptions, were urbanized; i.e., half or more of their population lived in urban settlements of 2,500 or more persons. They included all the counties with cities of over 25,000 population except Cheyenne, plus a line of growing counties in the scenic mountain portions of Montana and Wyoming. Apparently, no place without one of these features, a substantial city or a scenic attraction, gained population in the 1960's. In other words, the region's geographic growth pattern is concentrating, polarizing, in its more urban areas, while the rural areas are continuing to thin out. Much of local decline is a form of urbanization. In the early years of the 1970's, some smaller cities like Rock Springs, Wyoming, have experienced spurts of growth in connection with mineral development (3), although the bulk of mineral-related growth seems likely to occur in the larger cities where supplies, services, and housing are more readily procured.

The declining areas include virtually all the totally rural counties and many of the smaller cities and towns. Declining counties with no urban population contained 32.7% of North Dakota's population, but only 13.4% and 11% of Montana's and Wyoming's. Urbanized declining counties contained 14.7% of North Dakota's population, 19.4% of Montana's, and 34.1% of Wyoming's population, while partially urbanized counties accounted for five to ten percent of each state (Table 2).

The geographic patterns of population movements are of particular interest in revealing the determinants of local population change. Four major trends in the area may be discerned from the 1970 Census figures for migration between State Economic Areas (see map) since 1965 (4), in descending order of numbers of migrants: (1) out-migration from all parts of the region, particularly to the more rapidly growing, generally metropolitan, portions of the West and Midwest; (2) symmetric, but somewhat smaller, return migration flows from the same areas; (3) migration from predominantly rural and small town areas to SEA's containing the larger growing cities of the

-
- (2) In the following analysis, county population is used as the simplest indicator of social and economic size. Given the nation-wide general rise of labor force participation rates in recent years, it is likely that some areas identified as "declining" based on population trends may have gained in total employment, although not enough to eliminate the need for substantial outmigration.
- (3) "A town in Wyoming finds an industrial boom is accompanied by woes as well as wealth," Eric Morgenthau, Wall Street Journal, July 30, 1974.
- (4) 1970 Census of Population, Subject Report PC(2)-21, Migration Between SEA's.

TABLE 2

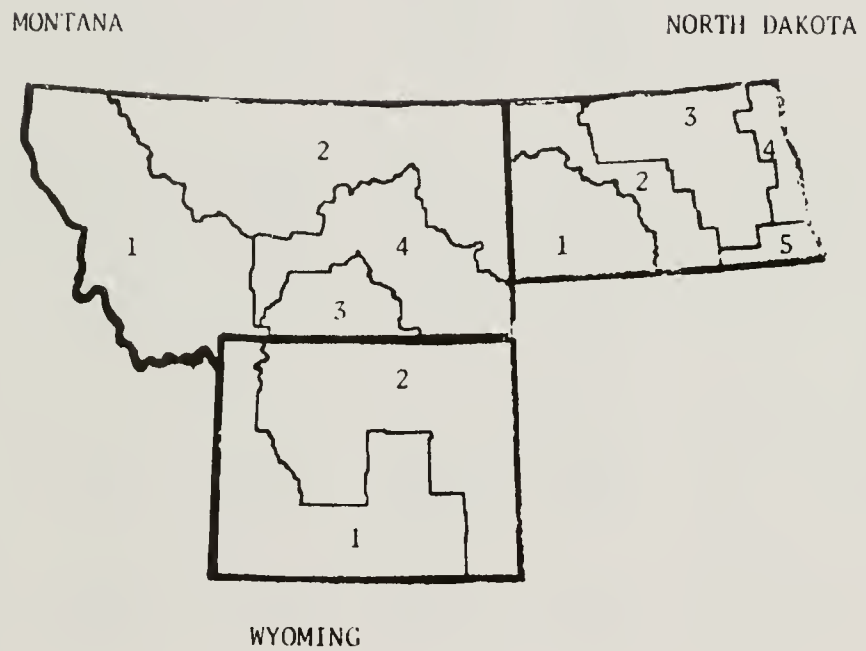
POPULATION OF COUNTIES BY GROWTH AND URBANIZATION STATUS IN MONTANA, NORTH DAKOTA AND WYOMING

	Total	Population of Counties Which Decreased 1960-1970				Population of Counties Which Increased 1960-1970			
		50% or More Urban		1-49% Urban		50% or More Urban		1-49% Urban	
Montana (percent)	694,409 100	134,741 19.4	49,480 7.1	92,995 13.4		305,399 44.0	67,687 9.7	44,107 6.4	
North Dakota (percent)	617,761 100	90,745 14.7	59,755 9.7	202,184 32.7		253,528 41.0	0 0	11,549 1.9	
Wyoming (percent)	332,416 100	113,494 34.1	16,823 5.1	36,542 11.0		165,557 49.8	0 0	0 0	
Total (percent)	1,644,586	338,980 20.6	126,058 7.7	331,681 20.2		724,484 44.1	67,687 4.1	55,656 3.4	

Source:

U.S. Department of Commerce, County and City Data Book,
Washington, D.C., G.P.O. 1972.

STATE ECONOMIC AREAS OF MONTANA, NORTH DAKOTA, AND WYOMING



Source:

U.S. Bureau of the Census.

TABLE 3
GEOGRAPHIC ANALYSIS OF SEA IMMIGRATION AND OUTMIGRATION, 1965-1970

		Within Region		Rest of US		Net Migration		
		In-	Out-	In-	Out-	Within	Rest	Total
		migrants	migrants	migrants	migrants	Region	of US	
North Dakota	1	4,573	7,245	2,785	8,636	—	—	—
(Bismarek)	2	8,132	10,276	5,449	12,831	—	—	—
(Minot)	3	9,300	14,529	15,827	31,818	—	—	—
(Grand Forks, Fargo)	4	13,742	6,136	23,098	35,181	+	—	—
	5	2,743	2,924	2,169	4,384	—	—	—
Montana								
(Missoula)	1	19,083	10,088	31,124	41,284	+	—	—
(Great Falls)	2	11,359	18,659	20,459	38,035	—	—	—
(Billings)	3	11,504	8,765	8,505	13,877	+	—	—
	4	3,662	5,187	1,997	3,559	—	—	—
Wyoming								
(Caspar)	1	9,901	6,428	18,616	24,500	+	—	—
(Cheyenne)	2	8,810	12,392	26,538	37,695	—	—	—
3-State Total		102,609	102,609	156,567	251,800	0	—	—

Source:

1970 Census of Population, Subject Report PC(2)-2#,
Migration Between State Economic Areas.

region; and (4) return migration from the growing cities to small town and rural areas. These four processes are visible in Table 3, which presents a geographic analysis of migration to and from SEA's of the three-state area. Note that numbers in the fourth column, migration to other parts of the U.S., are consistently the largest, and that the general trend of moves within the region was toward the four SEA's containing Grand Forks and Fargo, Missoula, Billings and Casper. (A full matrix of intra-area migration is given in Appendix C.)

The ten most favored origin and destination states of inter-state migrants to or from Montana, North Dakota and Wyoming are listed in Table 4; all are in the West or Midwest. It is notable that two Old West States, Nebraska and Wyoming, appear on neither list, meaning that they are not a significant part of the population exchange region for the three states on which this report focuses. About one-fourth of both origins and destinations were scattered outside the top ten states.

Four states were both the most frequent destinations of migrants from the area and the most frequent origins of immigrants: California, Minnesota, Colorado and Washington. This suggests that there is an active return migration of those who had earlier left the region. Should our present recession continue, previous experience of the 1930's suggests that this return migration may increase, mitigating population decline, but perhaps increasing unemployment problems.

Table 5 illustrates the very high mobility of the young in the region. Both because young people tend to be more mobile than the general population and because the first and hardest impact of a declining local economy is felt by young people at the age when they first seek a regular job, the migration process disproportionately depletes the younger age groups of stable or declining local populations, while those who were old enough to be settled and working at the onset of decline remain in the area. The result is a population in which the younger working ages are greatly under-represented.

TABLE 4
TOP TEN STATES OF ORIGIN AND DESTINATION FOR
INTERSTATE MIGRANTS, 1965-1970

Destination	Origin			Total
	No. Dakota	Montana	Wyoming	
1. Washington	9,693	21,335	3,752	34,780
2. California	10,798	14,469	8,394	33,661
3. Minnesota	23,017	4,315	1,013	28,345
4. Colorado	3,656	4,918	11,914	20,488
5. Oregon	2,646	5,754	1,685	10,085
6. Texas	3,264	3,186	3,320	9,770
7. Montana	5,753	--	4,000	9,753
8. Idaho	1,223	5,973	1,862	9,058
9. Arizona	2,119	3,404	2,598	8,121
10. So. Dakota	4,355	1,506	1,626	7,487
Other States	33,459	38,919	37,422	109,800
Total	99,983	103,599	77,586	281,168

Origin	Destination			Total
	No. Dakota	Montana	Wyoming	
1. California	4,708	10,626	4,458	19,792
2. Minnesota	11,199	3,373	841	15,413
3. Colorado	961	3,338	6,960	11,259
4. Washington	1,736	7,766	908	10,410
5. So. Dakota	4,260	2,329	2,901	9,490
6. No. Dakota	--	5,753	1,380	7,133
7. Montana	3,415	--	3,429	6,844
8. Texas	1,979	2,047	2,242	6,268
9. Idaho	185	3,802	1,502	5,489
10. Illinois	1,837	1,940	1,183	4,960
Other States	23,381	30,854	24,159	78,394
Total	53,661	71,828	49,963	175,452

TABLE 5
INMIGRATION AND OUTMIGRATION RATES OF SEA'S IN NORTH DAKOTA
MONTANA, AND WYOMING

State Economic Area		Number of Migrants 1965-1970, By Age, As % of 1970 Population		
		Total 5+	20-24 yrs	55-64 yrs
North Dakota	1. Immigration	9.6	23.9	5.3
	Outmigration	20.5	68.4	8.3
North Dakota	2. Immigration	13.7	36.8	6.2
	Outmigration	23.0	83.3	9.3
North Dakota	3. Immigration	12.7	37.8	3.6
	Outmigration	23.8	69.6	7.6
North Dakota	4. Immigration	22.5	51.9	6.2
	Outmigration	25.8	40.6	8.6
North Dakota	5. Immigration	13.3	43.0	8.6
	Outmigration	20.7	136.5*	5.5
Montana	1. Immigration	16.4	29.8	6.2
	Outmigration	17.0	39.0	7.3
Montana	2. Immigration	14.9	36.6	5.2
	Outmigration	26.7	67.6	8.6
Montana	3. Immigration	20.3	41.6	7.1
	Outmigration	21.6	49.5	12.7
Montana	4. Immigration	17.1	36.7	7.2
	Outmigration	27.1	76.8	10.5
Wyoming	1. Immigration	22.9	42.5	7.7
	Outmigration	24.7	36.8	13.1
Wyoming	2. Immigration	18.9	39.0	6.8
	Outmigration	26.9	68.3	10.9

*This percentage is correct. Outmigration s depleted this age group by the end of the decade that the remaining population in 1970 was smaller than the number of out-migrants, 1965 1970.

Source:

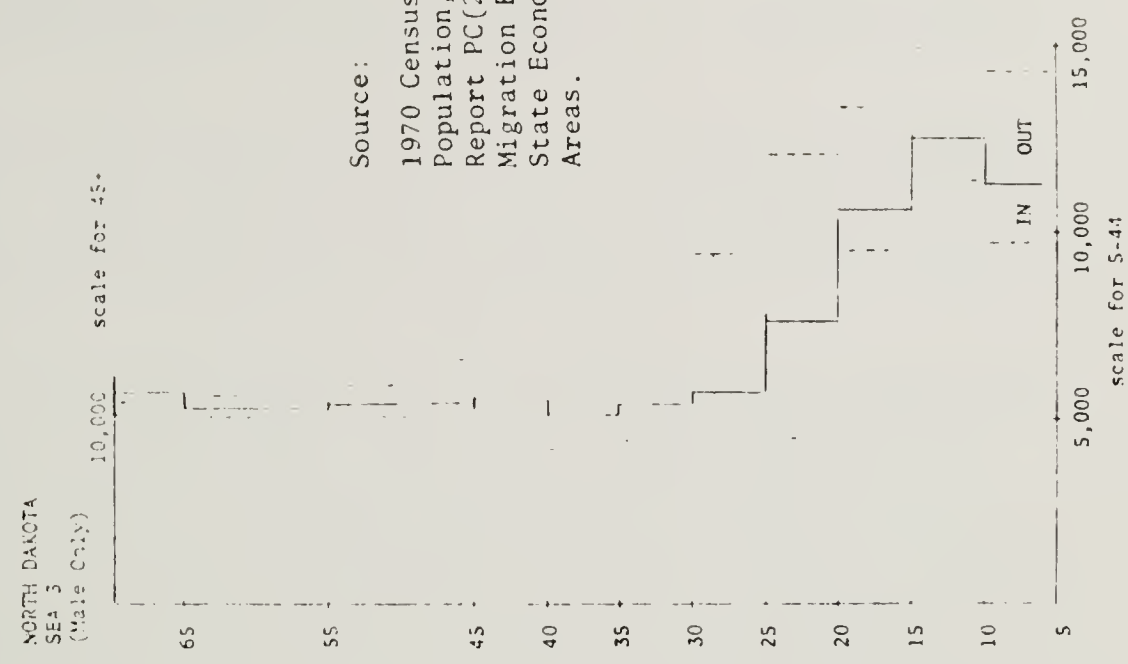
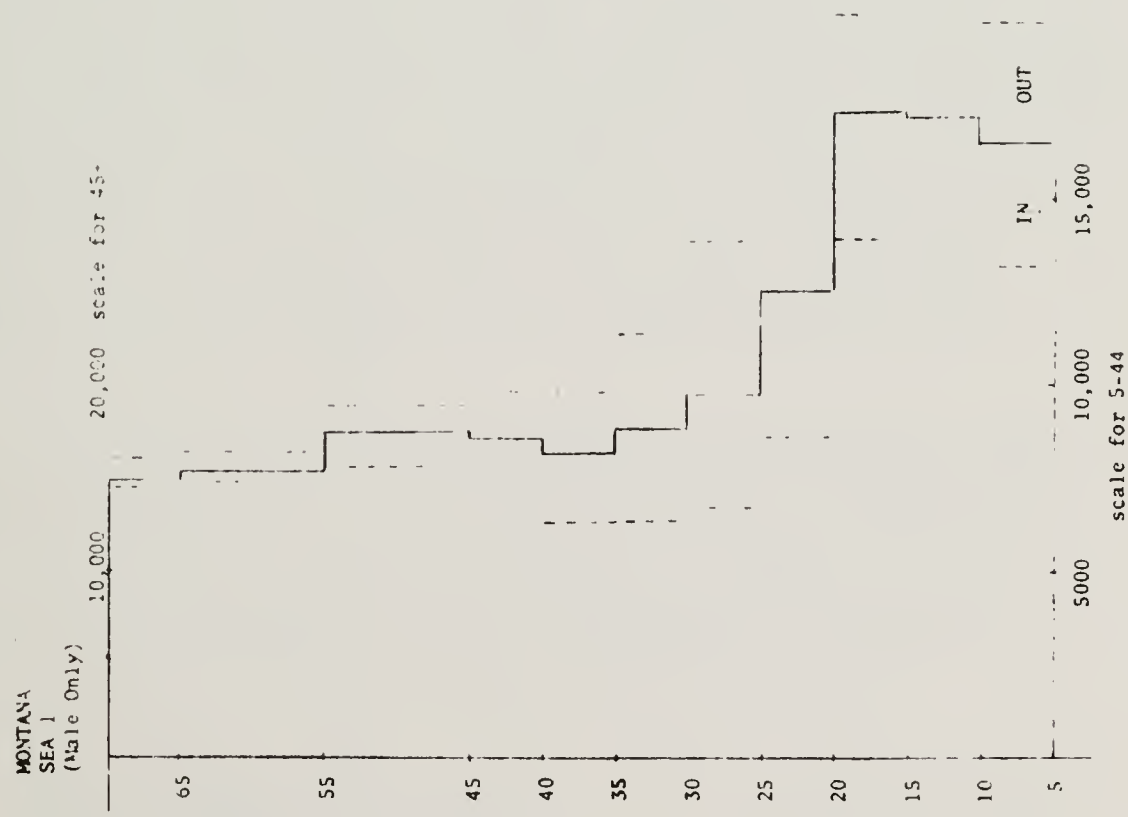
1970 Census of Population, Vol. PC(2)-2E, Migration
Between State Economic Areas

The evolution of an area's population is clearly shown in a profile of its age distribution. As a population declines or ceases to grow, its age distribution becomes top heavy. Thus, in Figure 1, Montana's SEA #1 (its western mountain area) shows a slight top-heaviness by comparison to the U.S. norm, reflecting the early stages of outmigration in much of the SEA, but also the long decline of Butte, Anaconda, and the surrounding mining areas. By comparison, North Dakota's SEA #3 (its north-central portion) shows the profile typical of more advanced population decline, with much more marked concentration in the older groups and a pronounced underrepresentation of youth. In this graphics of statistics one can plainly see the bases of the problems of many areas.

The migration profiles (labeled "IN" and "OUT") superimposed upon the age profiles show that immigrants tend to be older than outmigrants in these two areas, confirming the notion that much of the immigration may consist of former residents returning. The age shift between in and outmigration contributes further to the top-heaviness of the population age profile.

From the preceeding analysis we may draw several conclusions: (1) that there is a great deal of redistribution of population within parts of the Old West Region; (2) that the net effect of migratory flows is the aging of the population structure; (3) that the simple concept of people leaving an area is not sufficient, in fact, very substantial numbers of people are moving into areas of substantial outmigration and this may bring additional problems because these incoming migrants are older than the outmigrants and because the current recession may increase the labor surplus by increasing return migration.

FIGURE 1. POPULATION AGE AND MIGRATION PROFILES



Source:
1970 Census of
Population, Subject
Report PC(2)-2E:
Migration Between
State Economic
Areas.

"IN" and "OUT" represent gross migration, 1965-1970.

THE CONTEXT OF LOCAL ECONOMIC DECLINE IN THE REGION

Decline is characteristic mainly of the rural areas and smaller cities of the region, as discussed earlier. It is important, however, to put this fact in a region-wide geographic and historical context.

A simple three stage theory of area urban-industrial development, in which extractive industries are the first to develop, then manufacturing and then services as a stable hierarchy of cities evolves, is widely accepted among development economists and economic historians(5). There is general agreement as to its outlines and descriptive accuracy, although opinions vary as to which mechanisms propel it, and whether its value is normative or merely descriptive.

Primary, or extractive, industries such as agriculture, forestry and mining, characterize the first stage of development. Urban evolution in the primary stage is limited to a network of small trading, supply and service centers dominated by a single mercantile city on the main route into the area, through which its exports are traded. In the second stage, secondary or manufacturing industries are developed in the area, often beginning with processing of local extractive products, and an intermediate tier of urban centers evolves in which those industries are located. The rank order of cities within a region is established early and is exceedingly stable, although same-size neighbors may compete fiercely to establish a superior position to one another; for most urbanized regions of the U.S. the order has not varied importantly from the time when the region had one percent of its present urban population (6). The industry mix broadens in those cities as more goods are produced for consumption within the region, and their growth becomes steadier, less vulnerable to export and import conditions of particular goods. Growth becomes self-sustaining. As the population of the area increases, the internal market reaches a size large enough to support increasingly specialized region-serving services, and in the tertiary stage these services begin to dominate the industry mix. The greatest part will locate either in the original trading city or in the largest industrial city, and a descending hierarchy of lesser centers gradually takes on more specialized service functions as the system grows.

The three-state area under study remains almost entirely in the primary, extractive phase of development (Table 6). Its economy within large homogeneous sub-areas such as the mining areas of the Rockies or the dry-land wheat farm areas of the Missouri Plateau, is highly specialized, and is heavily dependent upon exports and imports. Recent data show little sign of industrialization except on the eastern edge of the area, but a substantial trend of urbanization as the smaller towns and rural areas thin out and their functions are transferred to the more viable of the medium-sized and larger cities (Table 8).

(5) Berry, Brian J. L. and Elaine Neils, "Location, size and shape of cities as influenced by environmental factors" in The Quality of the Urban Environment, edited by Harvey S. Perloff, Resources for the Future, Inc., Baltimore: Johns Hopkins Press, 1969, pp. 257-302.

(6) Pred, Allan R., "The spatial dynamics of U.S. urban industrial growth." Cambridge: MIT Press, 1966.

TABLE 6
LABOR FORCE COMPOSITION

Labor Force, 1970 (16 years old and over)												
Civilian Labor Force												
Total	Total	Female	Unem- ployed	Total ¹	Employed							Other
					Industry						Govern- ment	
					Manu- fact- uring	Wholesale and re- tail trade	Serv- ices ²	Educa- tional Services	Constr- uction			
United States	82,048,781	80,051,046	38.1%	4.4%	76,553,599	25.9%	20.1%	7.7%	8.0%	6.0%	16.1%	16.2%
Montana	266,395	260,649	35.1%	6.2%	244,608	9.7%	22.3%	7.3%	10.2%	6.4%	20.8%	23.3%
North Dakota	225,222	214,344	34.2%	4.6%	204,585	4.7%	23.1%	6.5%	10.6%	5.5%	18.7%	30.9%
Wyoming	132,819	129,577	35.4%	4.8%	123,389	6.4%	20.3%	8.7%	10.6%	6.9%	21.9%	25.2%

¹ Includes industries not shown separately.

² Business, repair and personal services

Source:

U.S. Department of Commerce, County and City Data Book, 1972. Data from 1970 Census of Population.

An important element of the area's economic base not reflected in the foregoing data is transfer income and other Federal expenditures (Table 7). Each state of the area receives 29% to 148% more in Federal outlays than it contributes in taxes, due mainly to disproportionate expenditures in the Departments of Agriculture and Interior, and to favorable tax deductions available in the agriculture and mining industries. The high rates of dependency in the population are also a factor. It is important to recognize that job-creation strategies would, if successful, have a small or negative effect upon income from transfer sources.

Several studies have pointed to the increasing importance of the "urban fields" of interdependent urban and rural living which spread from the largest national metropolitan complexes, especially those of the three coasts and the Great Lakes, in influencing the amount and character of local economic growth (7). Cities within 100 miles or so of those complexes or with special attractions to draw metropolitans traveling farther enjoy superior access to the capital, entrepreneurship, skilled labor and specialized information which are generated there, and tend to prosper (8). On the other hand, the declining areas of the country, with the important exception of metropolitan core cities, occur almost entirely in the interstices between these fields. The Old West region, and particularly the three states under study, are literally as far as one can get from these emerging urban fields within the contiguous states. It is the last and least settled part. It is the area of the nation's last major wave of homesteading with the precipitous development of the Missouri Plateau for dry-land wheat farming in the period 1911-1919 (9). The area's remoteness is only relative, not absolute, and for many kinds of manufacturing activities the additional transportation costs of locating in the region would be trivial; but for the area's existing extractive industries their low value of product per ton, the cost is substantial.

An important dimension of the area's remoteness from major metropolitan centers is institutional rather than locational in the tradi-

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- (7) Hansen, Niles M., The Future of Nonmetropolitan America, Lexington Mass: D.C. Heath & Co., 1973. Lamb, Richard R., Patterns of Change in Nonmetropolitan America, 1950-1970, unpublished Ph.D. dissertation, University of Chicago, 1974. Berry, (1970), "Labor Market Participation and Regional Potential," Growth and Change Vol. 1, No. 4 (October 1970). Friedmann, John and John Miller, "The Urban Field," Journal of the American Institute of Planners, Vol. 31, No. 4 (November 1965).
- (8) Unpublished Census Bureau estimates are said to reveal a reversal of this trend in the early 1970's. It may be only a temporary response to the business recession, or the start of a longer trend toward growth in more metropolitan areas. In either event, the trends bear watching, as they could seriously worsen the problems of labor surplus and service deficiency in declining areas of the Old West.
- (9) Robinson, Edwyn B., History of North Dakota, Lincoln: University of Nebraska Press, 1966. Toole, K. Ross, Twentieth-Century Montana: A State of Extremes, Norman: University of Oklahoma Press, 1972.

TABLE 7

STATE SHARES OF POPULATION, TAX BURDEN AND FEDERAL OUTLAYS, 1972

	Montana	North Dakota	Wyoming
Population, Percent of U.S.	0.34	0.31	0.16
Fed. Tax Burden, Total (millions)	\$ 606,150	\$ 438,940	\$ 313,530
percent of U.S.	0.29	0.21	0.15
Fed. Outlays (millions)	\$1,092,313	\$1,088,633	\$ 403,965
percent of U.S.	0.50	0.50	0.19
Defense* (millions)	\$ 336,135	\$ 207,723	\$ 75,065
percent of U.S.	0.54	0.33	0.12
Transportation (millions)	\$ 67,864	\$ 45,025	\$ 46,177
percent of U.S.	0.86	0.57	0.59
Interior (millions)	\$ 58,417	\$ 39,188	\$ 56,114
percent of U.S.	2.75	1.85	2.65
HEW (millions)	\$ 245,498	\$ 217,091	\$ 95,446
percent of U.S.	0.34	0.30	0.13
Agriculture (millions)	\$ 221,911	\$ 460,404	\$ 46,168
percent of U.S.	1.45	2.99	0.30

*Note: Detail is given only for Departments with large expenditures in area.

Source:

Barone, Michael; Grant Ujifusa and Douglas Matthews, The Almanac of American Politics 1974, Boston: Gambit, 1973.

tional sense. Profits from nonlocally owned industries flow directly out to their headquarter areas. Wages flow out as well, both in consumption and savings. Funds from rural area bank savings in North Dakota and Minnesota were found to flow disproportionately into loans aiding the development of the Twin Cities area, supporting the hypothesis that there is a general pattern of such rural-to-metropolitan savings flow (10). It should be understood, however, that the outflow of capital constitutes an economic gain to the savers and consumers involved. Interest payments flow in the other direction and are presumably equal or superior to the return available on investments inside the region, while local consumers are clearly free to buy inside the region but find superior offerings elsewhere. The loss to the region takes two forms. It results in a reduced contribution of wages to aggregate local income (or "multiplier effect"). It may possibly cause a smaller rate of capital investment to the extent that some local

(10) Shane, Matthew, "The flow of funds through the commercial banking system, Minnesota and North Dakota," University of Minnesota, Department of Agricultural Economics (August 1971), quoted in Hansen (1973), p. 9.

lenders may underestimate the soundness of prospective local borrowers, but it is more likely that causality runs the other way: a lack of local investment opportunities (growth) leads to an outflow of capital.

Even the larger settlements of the three-state area also tend to be on the lowest rungs of the industrial filtering process hypothesized by Wilbur Thompson, which explains that industries "filter down" through the system of cities, seeking remote locations only at a stage of their evolution when their own operations have become so routinized that little skilled labor and minimal management information are required (11). At this stage they no longer need the advantages of a metropolitan area and can afford to seek cheaper labor and land elsewhere. But also by this stage they have passed beyond their phase of rapid growth, so there is a natural tendency for remote areas, if they grow at all, to become specialized in branch plants of older, low-wage industries with limited prospects for further growth. The process of rural industrial decentralization is quite visible nationally, especially in the South, but has not appeared strongly in the three-state area, although it has reached into upper Minnesota (12) (Table 8). There was some growth of the ordnance, machinery, and transportation equipment sector reported for North Dakota in the 1960's, but the majority of employment growth in the three states is in retail trade, services, and government, while the original extractive industries are stable or declining (13). Remoteness thus conditions every aspect of the area's present and potential participation in the national economy.

The internal settlement pattern of the area is characterized by low population density because of the land intensive nature of its present major industries and an exceptionally uniform spread of population, i.e., few empty areas and fewer large settlements. It is a pattern which evolved elsewhere around the semi-independent family farm, but was already obsolete when the area was homesteaded for specialized cash-cropping by relatively prosperous farmers who soon demanded a full complement of store-bought supplies and a public education for their children. The accomodation was made by brute force, with massive investments in transportation. The institution of the parcel post and the rise of the mail-order business went integrally with this settlement pattern (14) as did a dense rail network in the eastern parts of the area and a thick scatter of market towns. But the real accomodation of a few people to a great deal of land came with the automobile and the truck, to which this region took more than almost any other. Road mileage, motor vehicle registration, and motor fuel usage per capita are far greater than national averages

(11) Thompson, Wilbur R., "The economic base of urban problems" in Neil W. Chamberlain, ed., Contemporary Economic Issues, Homewood, Ill Richard D. Irwin, 1969.

(12) Hansen (1973), op. cit.

(13) U.S. Bureau of Labor Statistics, Employment and Earnings 1939-1972 (Bulletin 1370-9).

(14) Boorstin, Daniel J., The Americans: The Democratic Experience, New York: Random House, 1973, p. 133.

TABLE 8
1950-1970 EMPLOYMENT TRENDS

	<u>Growth Sectors</u>	<u>Stable Sectors</u>	<u>Declining Sectors</u>
Montana	lumber & wood retail trade fire services trans. & utilities state & local govt.	construction principal metals food fed. government	railroad- metal mining
North Dakota	Ord., mach. & trans. equip. retail trade fire services state & local govt.	mining construction food production fed. government	railroads
Wyoming	utilities trade services (hotels) state government	mining construction fire	petroleum & coal products railroads

Source:

Employment and Earnings: States and Areas, 1939-1971
BLS Bulletin 1 370-9.

(Table 9) and among the highest of any states (15).

The area's heavy dependence upon motor fuels makes it particularly vulnerable to price rises or supply shortages arising from the unstable international petroleum markets. A twenty-cent rise in the price of a gallon, assuming no reduction in vehicle use (trends are still rising), would cost North Dakotans 6% of their average income, as estimated in Table 10; 5.9% in Montana; and 6.9% in Wyoming, more than double the impact on the United States as a whole. The cost per family in Wyoming would be \$789 per year. An equivalent cut in wages and salaries would constitute a depression. Motor fuel at \$1/gallon, a real possibility, would cost nearly 1/3 of 1969 incomes.

With the current prospect of a massive rise in the price of motor fuel, this disproportionate reliance and expenditure within the region suggests that radical adjustments will be necessary. One way or another less fuel will be consumed, primarily as a response to availability and price. Clearly, there will be a shift to smaller and more efficient cars and other machines, but this is likely to be a long process, because

(15) U.S. Federal Highway Administration, Highway Statistics, Washington, G.P.O., 1972.

TABLE 9
MOTOR FUEL, VEHICLE AND HIGHWAY STATISTICS

	Total Motor Fuel Use	Motor Vehicle Registrations	Federal Aid Highway Mileage	Total Road and Street Mileage
U.S.	536	.58	4.5	18.6
Montana	728	.84	17.9	112.3
North Dakota	809	.75	30.2	172.0
Wyoming	1005	.82	19.7	122.4

Sources:

1973 Highway Statistics, U.S. Department of Transportation, Washington, D.C., T.P.O., 1973 and 1970 Census of Population, U.S. Bureau of the Census, Washington, D.C., G.P.O., 1971.

TABLE 10
HYPOTHETICAL IMPACT OF A 20¢ PER GALLON RISE IN MOTOR FUEL COST

	Gallons Per Capita*	Cost @ 20¢	Income per Capita**	% of Income
U.S.	536	107.20	3119	3.44
Montana	728	145.60	2469	5.90
North Dakota	809	161.80	2696	6.00
Wyoming	1005	201.00	2895	6.94

* Table 4

** U.S. Department of Commerce, County and City Data Book, 1972

rising prices encourage the preservation of existing stock. Also, one may anticipate important changes in the geographic distribution of population and service and employment centers. One adjustment apparently in progress is for farmers and farm workers to live in urban areas, trading a longer farm commute for shorter trips to second jobs, shopping, services (the farm population has dropped much more rapidly than the number of farms in the three-state area). A second adjustment, also a well established trend, is to seek economies of scale in marketing, schools, health services and the like by concentrating such activities in fewer, larger and more widely spaced centers than before. An opposing force would be the dispersal of jobs, commerce and service into smaller, more closely spaced centers to reduce costs of movement, provided people would actually choose to forego the specialized offerings of more distant, larger places. Although our study is not sufficiently deep to lead us to conclusions as to what net effect these adjustments will have, it is quite clear that there will be strong tendencies within the region toward a shifting and in some ways more concentrated pattern of population services, and supporting activities. The working out of these changes promises to be a major theme for the region in the coming decade.

The area also makes disproportionate use of other imports whose price is influenced by the world situation and may change drastically on short notice. Among them perhaps most critical are fertilizers because of their energy content, but also important are farm and mining machinery, most consumer goods and many services, notably higher education. Data exist from which detailed analyses of these issues could be made (16).

Finally, it should be noted that the declining local economies of the area are for the most part extremely specialized in a single export product, be it grain, coal, cattle, timber, tourism, defense, metals, or petroleum. Their lack of diversity combines with small size, low mobility of a majority of the labor force, and absence of impetus for diversification to make them highly vulnerable to either upward or downward shifts of a size that other areas might take in stride. Such shifts can result from changes in world markets for one of the area's products, national policy, or the business cycle. An upward shift like the present coal development totally overruns some local areas' housing and public services and severely inflates the prices and tax rates local residents must bear; whereas a downward shift can impose radical and persistent under- or unemployment. This vulnerability constitutes the strongest argument for a regional approach to growth management which is neither opportunistically promotional nor dogmatically preservationist, but which keeps local growth rates within a range to which the existing communities can adapt without hardship.

[16] Polenske, Karen, Inter-Regional Input-Output Model of the U.S., 2 vols., Lexington, Mass., Lexington Books, 1972. The model is operational at Lawrence Berkeley Laboratories under Everett Lofting, with whom we have discussed possible applications of this kind.

SOME PROBLEMS OF DECLINING AREAS IN MONTANA, NORTH DAKOTA, AND WYOMING

While local population decline can impose a variety of real hardships, it is important, first, to recognize the positive effects it may have in reducing a labor surplus and providing youth with opportunities for higher education, employment and upward social mobility. It is also important to recognize the difference between problems caused by decline and problems which are merely associated with decline and would only be relocated by its reversal. There are, for example, large numbers of dependent people in the region who would not be able to accept jobs even if industry were developed here. Many American Indians and elderly people, for example, are poor and are relatively concentrated in declining areas (Table 11). But neither group has a significantly worse incidence of poverty in the three state area than in the rest of the country, if urban and rural residents are viewed separately (Table 12). Other groups with special problems which limit their mobility also tend to be relatively concentrated in declining rural areas, such as the physically handicapped (17).

TABLE 11
DISTRIBUTION OF TOTAL, AMERICAN INDIAN AND AGED
POPULATION, URBAN AND RURAL

	Total Population		Persons 65+		American Indians	
	Urban	Rural	Urban	Rural	Urban	Rural
197957 U.S. (% of Total Population)	73.4	26.6	7.04	2.61	0.17	0.21
694409 Montana (%)	53.4	46.6	5.15	4.60	0.73	3.07
617761 North Dakota (%)	44.3	55.7	3.98	6.77	0.29	1.90
332415 Wyoming (%)	60.5	39.5	5.69	3.39	N.A.	N.A.

Sources:

1970 Census of Population, Subject Report PC(2)-1F: American Indians; 1970 Census of Population, Subject Report PC(2)-9A, Low Income Population; State Reports, table 69.

(17) Collignon, Frederick C., The Causes of Rural to Urban Migration Among the Poor, Ph.D. dissertation, Harvard University, 1974.

TABLE 12
INCIDENCE OF POVERTY AMONG AMERICAN INDIANS AND
THE AGED, URBAN AND RURAL

	% of All Persons Below Low Income			% of Persons 65+ Below Low Income			% of American Indians Below Low Income	
	Total	Urban	Rural	Total	Urban	Rural	Urban	Rural
U.S.	13.7	12.0	18.2	26.0	23.9	36.5	25.5	48.5
Montana	13.6	11.3	16.1	25.1	25.3	26.8	43.2	45.5
North Dakota	15.7	10.9	19.3	25.6	23.3	26.6	42.5	50.0
Wyoming	11.7	10.8	12.9	23.9	23.5	24.7	N.A.	N.A.

Sources:

1970 Census of Population: Subject Report PC(2)-1F, American Indians; 1970 Census of Population, Subject Report PC(2)-9A, Low Income Population; State Reports, table 69.

The relative incidence of incomes below poverty level among both Indians and the aged is moderately higher in rural (mostly declining) than in urban parts of the area, although poverty rates for all but the small group of urban Indians are generally better than the corresponding U.S. averages. Looking at absolute numbers rather than percentages of persons below poverty level, the largest numbers are in the rural areas (Table 13). While present evidence is mixed, it should be clear enough that the income problems of the poor, the aged, and Indians loom large within, but also extend well beyond, the boundaries of declining areas. Decline should then be viewed not as the cause of their problem -- reversal of decline would in itself be no solution -- but as a complicating factor in its treatment. For example, 8 to 11% of rural families in the area have no access to an automobile (Table 14).

Many specific deficiencies in the quality of life in the declining parts of the region, however, can reasonably be traced to the fact of their decline, such as the deficiency or total loss of medical and other professional or technical services. While traditional analysis has emphasized the production aspect of the problem -- the severely limited number and choice of employment openings which necessitates so much outmigration -- job creation would be of little benefit to the large dependent segment of the population. We perceive an equal or greater deficiency of consumption activities: the increasing cost of meeting daily needs (due to greater distance from which most goods and services must be procured), the inefficiency of public service provision at decreasing scale and density by local government and school districts,

TABLE 13
NUMBER OF PERSONS BELOW POVERTY LEVEL, URBAN AND RURAL

	Income Below Poverty Level, 1969					
	Total Population		Persons 65+		American Indians	
	Urban	Rural	Urban	Rural	Urban	Rural
Montana	41,886	52,121	9,057	8,566	2,190	9,698
North Dakota	29,805	66,453	5,725	11,118	769	5,878
Wyoming	21,720	16,938	4,409	2,786	N.A.	N.A.
3-State Area	93,411	135,512	19,185	22,470	2,959	15,576

TABLE 14
PERCENT OF HOUSEHOLDS WITH NO AUTOMOBILE AVAILABLE

	% of Households With No Automobile Available		
	Total	Urban	Rural
U.S.	12.5	19.4	11.7
Montana	12.4	13.3	11.4
North Dakota	10.7	13.0	9.1
Wyoming	9.0	9.6	8.0

Source:

Calculated from 1970 Census of Housing, Vol. 1,
U.S. Summary, Table 33 and State Reports, Table
36.

the deteriorating local tax base. The problem of medical and health care in such areas has been justly emphasized: twelve declining rural counties in the area have no private physician in active patient care (18) and seventeen have only one (so full-time coverage is impossible) (Table 15). The declining urban areas also tend to be severely underserved on a population basis (Table 16).

Detailed analyses of individual problem areas such as health, education or municipal finance would exceed the resources of this study, and in some cases repeat excellent work already done. Some of the more interesting recent analyses are summarized briefly in the Bibliography of Mitigating Measures, Appendix B.

TABLE 15
DISTRIBUTION OF COUNTIES BY NUMBER OF
NON-FEDERAL PHYSICIANS IN ACTIVE PATIENT CARE, 1971

<u>State</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4 or more</u>
Montana	5	8	10	5	28
North Dakota	7	7	8	8	23
Wyoming	0	2	2	2	17

Source

American Medical Association, Distribution of
Physicians in the U.S., 1971. Chicago, 1972.

(18) Montana: Golden Valley; Mineral; Petroleum; Treasure; Wibaux.
North Dakota: Billings; Dunn; Foster; Oliver; Sheridan; Sioux;
Slope.

TABLE 16
RELATIVE SUPPLY OF PHYSICIANS, 1971

<u>Non-Federal Physicians in Active Patient Care Per 100,000 Pop.</u>			
	<u>Total</u>	<u>General Practitioners Per 100,000 Population</u>	<u>% General Practitioners</u>
U.S.	128.6	24.4	19.0
Montana	99.3	34.3	34.5
North Dakota	83.8	21.5	25.7
Wyoming	90.1	35.9	39.8

Source:

American Medical Association, Distribution of Physicians
in the U.S., 1971. Chicago, 1972.

GROWTH MANAGEMENT MEASURES

While policies of reversal or adaptation to decline are alternatives for a given place and time, they overlap in two respects. First, both policies should be potentially available to a locality; neither would be feasible or appropriate if applied in blanket fashion. Second, neither policy should be identified with an exclusive set of implementation measures. A sound reversal policy for an area may well require not only growth stimulation measures but, for example, social and environmental measures addressed to controlling the impacts of growth and to preventing a potential cycle of boom and bust from developing. A policy of adaptation, on the other hand, may focus first on mitigating certain adjustment problems of the remaining population during the decline process, but may well seek to stabilize the community's size at a viable level by promoting the growth of new industries to replace the ones still in decline. The following sections present a series of possible measures that might be undertaken under such policies and review the evidence as to their effectiveness. They are grouped for convenience as Production-Oriented Measures and Consumption-Oriented Measures. Together, they constitute a preliminary survey of tools for growth management policies.

PRODUCTION-ORIENTED MEASURES

Traditional area development efforts have focused largely upon the enhancement of production in the area. They have included:

- (1) Information dissemination and direct solicitation of desired firms or investors.
- (2) Provision of low-cost financing through municipal or state revenue bonds, where State legislation permits, or through LDA and SBA loan programs, or the formulation of development loan pools by local lending institutions and personal contributions.
- (3) Construction of roads, sewage treatment, and other needed public works through State, EDA, EPA, and other grant and loan programs.
- (4) Industrial site development in various stages (raw land, roads and utilities, building shells, complete factory and equipment) for lease or sale to employers by public agencies or community-owned development corporations.

There has been extensive experience in the use of these measures since the mid-19th century. Their emphasis is upon subsidy to buildings and equipment rather than manpower, which has the effect of selectively attracting the more capital-intensive or lower-wage industries. Three alternatives to consider are:

- (5) Provision of technical and management assistance, especially in the formation or expansion of locally owned enterprises and the development of new products or methods (19). Possible vehicles include state university campuses and extensions, the Old West Commission and new or existing community development corporations.
- (6) Employment subsidy: a simple, flat rate subsidy per man-hour for new or expanded employment over a fixed period of time (20).
- (7) Recruitment of key personnel outside the region, plus aid in home-finding and relocation.

(19) Burnett, Bill, "Comments on the problems of the Old West Region," Wyoming Department of Economic Planning and Development, May 1972, pp. 4-5.

(20) Brown, A.J. (1972) The Framework of Regional Economics in the United Kingdom. Cambridge: University Press.

Recent studies of area development strategies have begun to emphasize the need to influence the quality as well as quantity of jobs created, and to view industrial development as a two-way bargaining process in which each side, the community and the employer, may make some concessions to the other's needs. Particularly notable in view of its region's formerly indiscriminate promotional stance is the new plan of the Commission on the Future of the South, which now advocates selective attraction of higher-wage, non-cyclical and growing firms (21).

An area in which growth stimulation measures may overlap with adaptation to decline is the provision of other facilities and services if deficient in the local area. Elements of some growth stimulation efforts have included:

- (1) Manpower training and education. These may be justifiable as local expenditures even at high rates of out-migration according to recent research (22). Preliminary analysis suggests, however, that as education levels in the three-state area are already high, this component may not be as important here as it would be, for example, in the rural South.
- (2) Housing, health facilities and other services.
- (3) Enhancement of recreational facilities and natural amenities (23).

There has recently been a wave of disillusionment with aided area development strategies for depressed areas, sometimes characterized as the "jobs-to-people" approach to distinguish it from economic adjustment through manpower relocation, with or without planned accommodation to decline. A Rand Corporation study summarizing numerous evaluations of American area development programs found, for example, that such programs have been costly and of doubtful benefit to the poorer area residents on whose needs the projects were justified (24). Strong

(21) Commission on the Future of the South, The Future of the South, Research Triangle Park, N.C.: Southern Growth Policies Board, November, 1974.

(22) Raymond, Richard, "The interregional brain drain and public education" Growth and Change 4, no. 3, pp. 28-34 (July 1973).

(23) Hansen, op. cit., p. 62, 118, 135. Hansen has observed that recreation and tourism, while serving to attract metropolitan visitors who may help develop the area, are in themselves poor contributors to area welfare because the tourist industry is highly seasonal, sensitive to business cycles, and uses a predominance of low-skilled, poorly paid labor.

(24) Morrison, Peter A., Sara Mills Mazie, Richard B. Rainey, Susanna W. Purnell, Harry J. Boissevain and Sinclair Colemann, "Review of Federal programs to alleviate rural deprivation," Santa Monica: Rand External Publication R-1651-CF, November 1972.

indictments have been made of individual programs such as the Four Corners Regional Commission Plan for its emphasis on public works efforts benefiting local and outside investors but creating little or no permanent employment for the predominantly Mexican-American and Indian poor of the region (25). The claimed spread effects of growth center policies have seemingly failed to materialize except in the form of long-distance commuting, and the elusive "take-off" point of cumulative, self-sustaining growth has probably never been achieved through area development efforts in a truly isolated or depressed area of the U.S. A review of successful small town and rural development in formerly declining parts of Minnesota and Wisconsin found that "turnaround" occurred mainly in places already predisposed for growth by proximity to metropolitan "urban fields" and that the most effective inducements to new industry were not costly subsidies but personal presentations by local groups indicating a positive community attitude towards industrial growth (26).

Such criticisms suggest more thorough planning for the coordination, cost-effectiveness and distributional consequences of publicly aided area development efforts, but do not justify its abandonment.

Area development, like public housing, urban renewal, and many social programs, was doubtless oversold by its early enthusiasts, and a wave of disappointed expectations was inevitable. Even in a stable community, however, some new job growth is desirable to replace the natural attrition of older firms and to permit diversification and modernization of the industry mix. Area development is no cure-all for social and spatial inequalities, but it can help remove certain barriers to growth or replacement which are spatial in nature: by direct localized provision of access, specialized information, and various forms of transfer payments. There is little question that the more modest goals of expediting, supporting and guiding specific developments can be achieved in declining parts of the region, but their justification should rest more upon direct benefits than hoped-for multipliers, capital accumulation, agglomeration economies and spread effects.

(25) Alonso, William, "Technical review of the Four Corners Regional Commission Development Plan," 9th meeting of the Federal Advisory Council on Regional Economic Development, December 21, 1971. U.S. Department of Commerce, Washington, D.C.

(26) Hansen, op. cit., p. 75.

CONSUMPTION-ORIENTED MEASURES

The previous analyses have found strong economic and demographic trends supporting a gradual and essentially health depopulation of rural parts of the three-state area. Problems associated with this decline were found to lie to some extent on the production side, in a lack of jobs for some of the remaining population, but more strongly on the consumption side, in the form of barriers which prevent people from fulfilling their own needs regardless of whether jobs are made available to them. The greatest need, in other words, is to find ways of sustaining the quality of life despite decreasing population and employment.

The literature in which such measures appear is so diverse that this review could only skim the surface. We have attempted to identify the main areas of potential action and to provide concrete illustrations, but remain far from having exhausted the possibilities.

There is almost no experience in the development of coordinated consumption-enhancement efforts addressed to the problems of declining rural areas and small cities which accept and try to cope with decline. Although progress has been made in areas such as school district reorganization and health care delivery, it tends to be enveloped in fragmented program areas without any view of the overall needs and priorities of rural and small town people.

Part of the problem is that rural and small-town communities are a very small part of the present national perspective, and part of it the lack of responsive institutions through which such people can make their preferences felt.

A pervasive need in most areas of goods and service consumption seems to be the creation of institutions better adapted to serving a low density, remote and declining population. For example, two interesting studies of separate health-related problems attracting physicians into rural practice (27) and providing improved medical communication in remote areas (28), arrived at parallel conclusions. Neither problem was essentially economic or technological in nature, but demanded an institutional solution: the creation of organizations capable of discerning needs, aggregating existing markets, assembling the available resources and managing the delivery process.

Some measures noted in the literature review which are potentially relevant (Appendix B) include the following:

- (1) labor force adjustment measures keyed to the process of decline (29). (Note that parts of the region can presently be found representing every stage.)

(27) "Recruiting Physicians for Rural Areas," Health Services Reports.

(28) Kalba, Kas, "Communicable Medicine: Cable TV and Health Services," Socio-Economic Planning Services 7:611-632 (December 1973).

(29) The following are drawn largely from Rust, op. cit.

- (a) General enhancement of population mobility and the job-finding process.
 - general education (after age, the most important factor in mobility) (30).
 - vocational and technical education.
 - manpower services.
- (b) Areas in boom phase: precautions against over-expansion of labor force as a result of boom development in coal or other industries.
 - require that firms hiring workers from outside the area guarantee them transfer privileges or job-finding and relocation assistance if subsequently laid off.
 - require that employers notify public officials of major impending expansions or layoffs.
- (c) Areas in the "shadow boom" phase of economic stagnation and continued population growth.
 - stop psychological resistance to outmigration of youth, dispel "civic-minded" prejudice that it is harmful to community (the alternative is more so).
 - school field trips to growing areas.
 - vocational counseling on non-local job prospects.
- (d) Areas in the primary decline phase: helping the new labor force entrants relocate (31).
 - job search: counseling, arrange interviews, solicit recruiters.
 - housing search.
 - transportation of family and belongings.
 - amortization of real estate holdings (home, family, farm).
 - financial and legal counseling.

(30) Lansing, John B., and Mueller, Eva, The Geographic Mobility of Labor, Survey Research Center, Ann Arbor, 1967.

(31) British experience:

Brown, A.J., The Framework of Regional Economics in the United Kingdom, Cambridge: University Press, pp. 281-289, 1972.

Several studies of previous Manpower Administration projects:

Hansen, Niles B., Urban and Regional Dimensions of Manpower Policy, U.S. Department of Labor, Manpower Administration, June 1969. Chapter 11: "Promoting Labor Mobility," pp. 398-424.

Mangum, Garth L., "Moving Workers to Jobs: An Evaluation of the Worker Mobility Demonstration Program," Poverty and Human Resources Abstracts (Trend Supplement), v. 3:6, (December 1968).

Mississippi Labor Mobility Project, STAR, Inc., Relocation Assistance Delivery Techniques, Hattiesburg, Miss., December 1973.

- (e) Areas in the secondary decline or equilibrium phase:
--relocation assistance as in (d) but emphasizing needs of older workers.
- (2) Helping scarce workers move into the region. The greatest attention has been paid to physicians in this respect, but lawyers, entrepreneurs, administrators, skilled mechanics or tradesmen, teachers, technicians and paraprofessionals may also be needed in specific local situations.
 - (a) Advertising and direct solicitation.
 - (b) Material inducements: house, car, office, equipment, cash (found ineffective in attracting physicians (32)).
 - (c) Educational or training loan or grant conditioned on working for a specified period in the area.
 - (d) Institutional arrangements: e.g., group practice, organized market (as in prepaid health maintenance plans).
 - (e) Legislative changes affecting practice, e.g., no-fault malpractice insurance. (The cost of insurance is an important factor in driving physicians out of individual practice).
- (3) Rationalizing the geographic pattern of service provision and access.
 - (a) support a network of viable small towns as service centers (33).

(31) Nichols, Jack L., and Abrams, Harvey, The Relocation of the Hard Core Unemployed, Minneapolis Rehabilitation Center, February 1968.

Organization for Social and Technical Innovation, An Assessment of Six Labor Mobility Demonstration Programs, a report to the U.S. Department of Labor, Manpower Administration, November 1967.

The Manpower Administration is starting a new "pilot project" in its Southeast region, offering job search and relocation assistance to 1000 unemployed workers per year for 3 years (RFP MA/OPER7501, 12-19-74).

(32) Madison, op. cit.

(33) Wrigley, Robert L., Jr. "Small cities can save rural America," offers a pep-talk for this approach. There is a small literature on scale economies in urban public services (cf. Hirsch, Werner Z., "The supply of urban public services" in Harvey S. Perloff and Lowdon, Wingo, Jr., Issues in Urban Economics Baltimore: Johns Hopkins Press, 1968, pp. 477-526) and at least one study of optimal rural school district sizes (Fred White and Luther Twetten, "Optimal school district size emphasizing rural areas" Journal of Agricultural Economics 55:1 pp. 45-53, February 1975). Since "optimal" service district sizes will vary both with use

- Coordinated location of State and Federal public agency offices and service outlets in chosen towns.
 - Transportation assistance for the aged, handicapped, families without cars in reaching service centers (see below).
 - Help the less viable towns not chosen as service centers to adjust downward to a scale they can sustain.
 - Create new centers in areas which lack one.
 - Encourage novel service institutions and techniques adapted to small scale and remoteness (see below).
- (b) Support more independent living in remote rural areas where density is too low to support towns as service centers, or where the need for travel reduction becomes acute.
- Home employment: arrange subcontracts for clerical, computational, light assembly work at home.
 - Accredited home education (TV and correspondence).
 - Remote shopping, banking, legal services, etc., greater reliance on parcel post or equivalent and electronic communications.
 - Mobile routine and emergency health services to home (or see below (c)).
 - Aided self- and mutual-help home building (34).
- (c) Create part-time local service outlets staffed intermittently by mobile teams. Where door-to-door delivery is impractical but densities are too low for a permanent center, this approach has historically permitted some aggregation of markets and service clientele, as in the circuit court and the medieval market-fair.
- (4) Developments in Specific Service Areas

(a) Communications (35)

- Special TV programming for rural needs: home education, public health education, agricultural information.
- One-way cable service to remote farm-ranch-mining

density and with the production functions of the particular services, no simple grid of service areas can be optimal for all services and all parts of the region, and not all centers would specialize in the same activity mix. A more immediate constraint may not be solving the geometric puzzle but finding real small cities and towns with the infrastructure capacity for service expansion.

(34) Building Systems Development, Inc., Large-Scale Self-Help Housing Methods, San Francisco, 1970.

(35) see Kalba, op. cit. for examples of medical applications, cost.

areas not now served.

- Two-way cable service with video and data transmission, record keeping and computation capability to selected remote locations (permanent or intermittent service centers); creation of communications utility (36).

(b) Transportation (37).

- Rail: oppose abandonment of low-use branch routes.
- Public transit: support flexible bus or jitney service, combine with school transportation, goods delivery (38), Postal Service.
- Personal transportation: tax larger personal vehicles, explore ways to reduce fuel costs, encourage joint use of vehicles (39).

(c) Education.

- School district optimization: reorganizing declining rural school districts (40) to achieve economies of scale is of interest but must be balanced against transportation costs. A study by White and Tweeten (11) derived estimates of optimal district size based on cost and productivity of education in rural Oklahoma. Optimal size was found to vary with student density and educational program, being smaller for minimum program content and lower density.

Financing: general concern with high property tax rates is complicated by concern with inequalities between local districts. The Serrano vs. Priest decision in California and subsequent cases in many states casting doubt on the use of the local property tax for public education costs. The Rodriguez

(36) ibid.

(37) U.S. News 76:58 (January 7, 1974) "Isolation: growing woe of many towns."

(38) Noble, Brian J., "How to Improve Rural Transportation Systems," Appalachia 5:18-25, April 1972.

(39) Hibbs, John, "Maintaining transport services in rural areas," Journal of Transportation Economics and Policy 6:10-11 (January 1972).

(40) U.S. Advisory Commission on Intergovernmental Relations, State Actions on Local Problems 1972, Washington: G.P.O. 1973, pp.10-11.

(41) White, Fred, and Luther Tweeten, "Optimal school district size emphasizing rural areas," Journal of Agricultural Economics 55:1, 45-53 (February 1973).

_____, "Internal economics of rural elementary and secondary schooling" Socio-Economic Planning Sciences 7:353-369 (Aug. 1973).

vs. San Antonio decision of the U.S. Supreme Court places responsibility with the states (42). A number of revised formulas for State support to school districts in Montana were evaluated by Wicks (43) for their impacts on tax levels and property values, generally arguing against radical changes in property tax levels on the grounds that windfall gains or losses in property values would result. The "brain drain" problem also calls for more equitable support formulas (44).

- (d) Vocational and Technical Education, Manpower Training. Five experimental approaches to service delivery discussed by Marshall:

- Operation Hitchhike: which attaches manpower programs to existing rural institutions in order to reach scattered rural populations more effectively;
- Area Concept Expansion: (also known as the Ottumwa Plan), which links rural manpower service units to the expertise of central manpower service offices;
- Concerted Service in Training and Education: which attempts to concentrate the resources of separate agencies on the problems of people in selected communities, and to identify employment opportunities and occupational education programs for the poor and unemployed;
- Operation Mainstream: which develops employment in public works projects for unemployed older workers;
- Neighborhood Youth Corps: which provides grants for work experience and training of youth from low-income families." (45)

(42) U.S. Advisory Commission on Intergovernmental Relations, op. cit., pp. 22-25.

(43) Wicks, John H., "Recent School Decisions and Montana school finances," Montana Business Quarterly 11:27-35 (Winter 1973); also Todd, Ralph H., "Revenue receipts of school districts in Douglas and Sharpy Counties (Nebraska) 1970-1971. Ralph H. Todd, Urban Affairs Kaleidoscope 1:19-24 (August 1972).

(44) Raymond, Richard, "The inter-regional brain drain and public education," Growth and Change 4:3, 28-34 (July 1973).

(45) Marshall, Ray, Rural Workers and Rural Labor Markets, University of Texas Center for the Study of Human Resources, Austin 1973, as cited in Morrison et al. op. cit. pp. 8-9.

(e) Health Services.

- Attract physicians into rural practice; use of National Health Corps personnel.
- Provide specialist consultation, professional education for isolated practitioners (46).
- Support mobile emergency services (47).
- Organize Comprehensive Health Centers (48) (demonstrations cited are in more densely populated rural areas; may not be applicable except in larger towns).
- Promote use of physician's assistants (49).

(f) Legal Services.

- OEO's Legal Services Program operated successfully in many rural areas beginning in 1966. (It is now (since July 1971) operated as an independent corporation and somewhat more restricted as to the activities it may undertake.) Major parts of its workload in rural areas were landlord and tenant problems, bankruptcy, welfare problems, divorce and annulment (50).

(g) General Government

- Provide technical assistance in preparing loan and grant applications, staffing; legal, tax and financial consulting to local and county governments as needed.
- Propose model enabling legislation for flexible home rule, sharing of staff between neighboring jurisdictions, county consolidation on the Montana model (51) (with revisions based on their experience since).

(46) Kalba, op. cit.

(47) Cross, Cary, "Southeast Ohio's Answer to the Emergency in Emergency Health Care" Appalachia 7:1-12 (August-September 1973). See Appendix B for his summary of funding sources.

(48) Morrison et al. op. cit., p. 54.

(49) ibid., p. 55-56.

(50) ibid., pp. 36-41.

(51) U.S. Advisory Commission on Intergovernmental Relations, op. cit., pp. 7-8.

TOWARDS A GROWTH MANAGEMENT STRATEGY FOR DECLINING AREAS OF THE OLD WEST

The preceding pages have attempted to show that growth and decline are more often complements than polar opposites. It appears that the region's need is for a flexible approach to growth management, rather than either haphazard applications of available measures to stimulate, moderate, or accomodate local economic and population fluctuations, or rigid adherence to a master plan.

There are two important respects in which growth and adjustment measures need coordination. First, the relationships between growth rates and social conditions over time within areas must be kept in balance to avoid oscillations of overgrowth and decline, and to keep the scale of social needs within the capabilities of spontaneous or aided adjustments. Second, there is an interdependency of local growth rates, such that growth in one area may either promote or retard growth in another.

The need for flexibility arises from a number of conditions: the volatility of growth prospects in the area's export industries, which can abruptly transform local labor supply conditions from surplus to shortage; the dependency of the area upon outside sources of investment and transfer income; the variability between states and areas of institutions, values and legislative climate; the sharp changes and reversals in economic and social circumstances, exemplified by shifts in the birth rate and price fluctuations in fuel.

A correlate of the need for flexibility is the need for a continuous management capability. A considerable load of information-gathering, evaluation and problem-solving is implied. Recent Federal legislation has begun to recognize this need in some program areas, notably Title IX of the Public Works and Economic Development Act which provides for economic adjustment assistance to areas of threatened severe unemployment without the normally prerequisite Overall Economic Development Plan (52); and the opportunities for flexible allocation of program funds within states under the Comprehensive Employment and Training Act, Health Planning and Services to the Aged and Handicapped legislation, and the setting of air quality standards under EPA's newly approved regulations (53).

A growth management strategy for the declining areas of the Old West will need ways of delivering needed programs. It will also need to establish procedures for deciding what combinations of programs can be effective at what cost in specific local situations. Perhaps most importantly, however, it must secure agreement on directions or purposes, and resolve conflicting claims upon its powers and resources. Its content is sufficiently controversial that a great variety of persons will doubtless oppose such a system if they are not consulted in the decision process. The decision will be better, fairer and more durable if they are.

(52) Public Law 93-425, September 27, 1974.

(53) Area Development Interchange, Vol. V, no. 3, February 1975.

Clearly, the Old West Regional Commission could act in such a growth management system: (a) as a resource group channeling ideas, data, technical assistance, model legislation and program information to State agencies; (b) as an advocate to the federal government and private industry on behalf of the Region; (c) as a forum for information sharing and coordination; and possibly (d) as an agent of the member States for selected implementation activities.

Given these possibilities, the Commission's role should emphasize the areas in which it has the greatest comparative advantage. There are at least three such areas. The first is in dealing with local problems which repeat themselves widely in different jurisdictions, like economic and demographic analysis, the improvement of health services, school district consolidation and municipal finance. The second area of comparative advantage is in dealing with area-wide problems requiring a unified stance towards outside interests so that one jurisdiction will not be played off against another for concessions, like the prospective growth and decline of coal mining areas. The third area of advantage is in dealing with problems in which one local area's development can strongly affect another's, such as labor relocation.

The principal functions of the proposed growth management system may be grouped into observation, diagnosis, prescription and implementation. Each function would depend upon local, State and Regional contributions, with the central role of coordination performed at the Regional level.

(1) Observation functions would include:

- (a) Routine analysis of published statistical data on local area conditions.
- (b) Special purpose field observation of local area conditions; identification of critical contingencies to look out for in (c) and (d).
- (c) Selective observation of national and world developments in selected key industries.
- (d) Observation of national developments affecting program resources.

(2) Diagnostic functions would be performed on a priority basis in areas of most severe problems, but would ideally be extended area-wide and routinely updated. They include:

- (a) Area self-diagnosis: locally initiated problem identification.
- (b) Area labor market: geographic distribution of present and short-term future surplus or shortage of general labor and specific skills or professions; underemployment, seasonality or wage deficiency problems.

- (c) Area institutional capacity: geographic coverage of health care institutions, manpower services, legal services; serious problems of school district size, municipal and county administration, tax base.
 - (d) Area site development capacity: geographic distribution of areas with surplus infrastructure capacity, e.g., utilities, communication, air quality standards.
 - (e) Early warning of abrupt changes in area economic growth, projection of consequences for population composition and quality of life, with quantitative estimates of size and timing of adequate corrective action (jobs added or phased out, workers relocated into or out of the area, etc.).
- (3) Prescriptive functions would be performed following any positive identification of a problem and its most likely causes. They would include:
- (a) The establishment of area development, labor adjustment and service enhancement objectives for selected sets of problems, including selection of a provisional set of first priority target areas.
 - (b) The generation of specific proposals for program development and funding.
 - (c) proposal review and evaluation, including cost consistency (A-95) review, benefit/cost, environmental impacts, administrative review at all levels and public discussion.
- (4) Implementation functions would include:
- (a) Program organization and staffing.
 - (b) Periodic review of cost, procedural efficiency and program impacts.
 - (c) Information sharing: aid to similar programs in start-up and problem solving.
 - (d) Updating, revision or termination of programs as appropriate in light of changing conditions.

It is recognized that the suggested approach to growth management may seem highly ambitious if viewed all at once. It would be perfectly plausible, however, to evolve such a program incrementally, starting out as a resource group serving existing State and local programs.

POLICY IMPLICATIONS

We can make some preliminary suggestions as to the actual priorities the Commission might set within such a growth management system. We must emphasize, however, that these suggestions are based upon a brief study, and derive almost entirely from our previous research and personal values. We offer them in hope of starting a dialogue, not as firm answers.

First, population loss from declining rural areas should be regarded as a positive force for most people. The declining areas of the Old West have done an exceptional job in most respects of sustaining the quality of their people's lives and in equipping their youth to make the best of a growing national economy. The loss does, however, expose more vividly the needs of the aged or immobile poor and of American Indians, the groups who have not participated as fully in the urbanization process.

Second, boom growth in any one sector should be regarded as a valuable but limited opportunity to enhance the area's sources of income and urban infrastructure, but at the same time the potential source of yet another boom and bust cycle such as have plagued the region throughout its modern history. It is important to look beyond the immediate problems of expansion to the not very distant time at which the present economic sources of super heated growth will pass, and to avoid being carried by demographic and institutional momentum into an over-expansion which, as previous history of the area has shown, can take a half-century or more to readjust.

The "shadow-boom" period of rapid population growth after the peak of economic growth in an area has passed is potentially the most dangerous, because there may be outward signs of distress while a potential labor surplus is building up among the juvenile population. Efforts in areas now in this phase should include overt preparation of youth to outmigrate successfully.

For many areas in the primary decline phase, publicly aided relocation assistance will probably prove to be needed. Industrial promotion in this primary stage will merely attract more immigrants and prolong the problem, unless there is already a labor surplus and unless there is a reasonable prospect of steady growth.

Areas in the secondary decline phase have low mobility, low fertility, slowly rising death rates and a population size which has become exceedingly resistant to decline. For places now in this phase, the main objectives should shift from moving people out of the area, as was vital in the primary stage, to helping people who stay to cope with the changing context and capabilities of their community. Promotion of employment growth by traditional means may be appropriate at this stage, but should be done with more attention than is normally paid to the needs of the non-mobile community members. Rapid expansion in a growth sector like mining or construction of a small community in this stage of decline could overshoot employment needs and lead to price inflation, tax rises and a general worsening of the situation from most

residents' viewpoints. Other priorities might include encouraging locally owned or administered enterprises, cultivating political influence outside the area and resisting destructive exploitation of non-mobile people and the natural environment.

A wide range of adjustment activities might also be considered from the earlier list. Local priorities may differ from our perceptions, but we would suggest emphasis upon public transportation and communications, service and school district consolidation and the development of institutions for remote health care delivery.

An overriding public objective in the secondary decline and non-growth equilibrium stages should be to protect, enhance and capitalize on the benefits of slow growth such as a stable community, strong community ties, and the opportunity for communicating the customs and values of an older era to a younger one. In the minds of those who have chosen to remain through the secondary phase, these values may outweigh some degree of increased material consumption. They ought to be respected.

A general implication of the foregoing recommendations is that the new urban development prospects arising from coal developments should not be regarded as a means of "saving" declining towns which have reached the secondary decline or equilibrium stages. It would seem best, where feasible, to guide such growth into the larger cities with relatively greater physical, social and institutional capacity for growth. Where new remote settlements are required for coal extraction, the creation of temporary new towns ("camps" might be a better term) and careful restoration when they are no longer needed might well prove less harmful.

In the development of new services, it is our preliminary impression that the following warrant highest priority.

- (1) Relocation and job finding services, addressed equally to reducing the numbers of surplus workers and of scarce workers within local areas. Some of this relocation can be transfers between urban and rural parts of the region, but moves to and from major metropolitan areas outside the region should also be assisted as required.
- (2) Institutional development services, especially in the fields of health, schools, public transportation, and communications, to provide coverage of the more remote and thinly populated parts of the Region, with special emphasis on reaching people unable to travel routinely by automobile.
- (3) A positive first step could be the development of an area diagnostic service to aid existing agencies in setting their own inter-area priorities for measures affecting or accomodating local growth and to support local communities in planning and grant-seeking. The

diagnostic function is suggested rather than routine data-gathering as a starting point because useful results can be achieved for a few areas quickly at low cost, and because the experience of actually using the data for diagnosis in a few areas will help in selecting which items to collect and update routinely in the future.

APPENDIX A

Bibliography of Declining Areas, With Special
Emphasis on the Old West Region

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growing importance of "urban field" effects radiating from the larger megalopolitan clusters of cities in promoting growth, but also sensitive analyses of roles of tourism and local industrial development efforts.

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- Two alternative approaches to coping with local decline are examined: (1) a maintenance approach, whereby outmigration would be curtailed and steps taken to rejuvenate the area's economy; (2) an assisted-migration approach, emphasizing adaptation to rather than reversal of population decline and strengthening the effectiveness of migration as a means of material improvement for individuals. The demographic features of the assisted-migration approach suggest that it is the sounder and more realistic policy strategy.

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- manpower development
- education
- health and medical care
- family planning
- welfare
- rural housing
- area and regional development
- community organization
- conservation and natural resource development
- adjustments in agriculture, forestry, fisheries and mining
- more effective government.

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pp. 63-69: "Communities in Decline: A Case Study" reviews histories of the declining coal mining towns of Columbus and Noonan, North Dakota, the impacts of coal development (locally owned) 1900-1960 and its shutdown 1960-1970. Notes loss of physicians, ambulance service, erosion of services generally.

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APPENDIX B

BIBLIOGRAPHY OF MITIGATING MEASURES

Appalachia 5:5 April 1972, pp. 7-17. "New Agency Sends Health Personnel to Critically Short Areas." National Health Service Corps, P.L. 91-623, 1970, for primary care only. Tries to provide doctor/population ratio -- 1/4,000. Initially favored places with facilities already providing labor only. Waits for application -- no outreach. Depends on Hill-Burton program for facility counts. NOTE: this government publication is a good, readable source of intelligence on the wide variety of "mitigating measures" demonstration programs being implemented in Appalachia.

Area Development Interchange. A twice-monthly four-page summary of new legislation, major administrative actions, conferences and important reports affecting the development of rural areas, towns and smaller cities.

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Funding of Emergency Health Service Projects

The code of the Appalachian Regional Commission permits funding of emergency medical service projects in areas designated as health demonstration areas if these projects are part of the areas' demonstrations. Emergency medical service projects can be funded only if they are components of primary health care systems. Primary health care is defined by the Commission code as health services in a comprehensive health care system adequate for meeting daily personal health needs on a full-time, continuing care basis. A system which provides the required continuity of care necessarily involves the maintenance of complete medical records and linkages to other levels of care—secondary (i.e., hospital services) and tertiary (i.e., highly specialized research-oriented services usually centralized in regional hospitals). Under the Commission code definition of primary health care, once an individual enters into the comprehensive health care system for any reason and initial care is given to him, the primary health care component of the system makes available to him a full scope of personal health services, from simple testing to specialized treatment.

This definition of primary health care makes most emergency medical service projects outside of the health demonstration areas ineligible for funding by the Commission.

Sources of Funding

Types of Funding Available

Department of Defense¹

Office of Civil Defense

support for community emergency communication centers, especially including equipment

Department of Health, Education and Welfare¹

Health Services Administration

Division of Emergency Health Services, Federal Health Programs Service

emergency medical service systems

Health Care Facilities Service

physical facilities such as hospitals and clinics

Regional Medical Programs Service

emergency medical care programs connected with heart disease, cancer, stroke and related diseases

National Institutes of Health

Division of Physician and Health Professions Education, Bureau of Health Manpower Education

programs involved in use of physicians' services in emergency departments; training of professionals involved in emergency services

National Institute of General Medical Services

grants for research on trauma and shock; support of trauma research centers; fellowship and training programs

National Institute of Neurological Diseases and Stroke

research on accidental injury to the central nervous system; grants for facilities and equipment for special head injury centers; fellowships and training programs

Social Security Administration

payment for services, including outpatient and emergency care and ambulance service

Department of Transportation¹

Division of Emergency Medical Programs

assistance in highway safety programs; funding of emergency service plans and demonstration projects

Small Business Administration¹

loans for purchase of ambulances and equipment and operation of ambulance services

Ford Foundation, 320 East 43rd Street,
New York, New York 10017

general emergency medical service projects

Robert Wood Johnson Foundation, Princeton, New
Jersey 08540, Attention: Margaret Mahoney

rural health care projects (not including major equipment)

¹ For further information, contact the regional offices of these government agencies.

Gilmore, John S. and Mary K. Duff, "Getting a handle on rural development: the Colorado approach -- Policy analysis for rural development and growth management in Colorado," Denver Research Institute, U. Denver (Committee print for U.S. Senate Committee on Agriculture and Forestry, October 10, 1973).

A rich brew of ideas:

Proposes State Growth Management Agency to coordinate policy. Structure would include representatives from COG's and State agencies.

Would produce 5-year growth plans.

Rural Development Corp.: capital and entrepreneurial help to business, governments, housing authorities, etc.: on \$300 million from State -- 1/3 for grants, 2/3 revolving loan fund.

Preserving agricultural land.

- Development Gains Tax -- tax on net capital gain on selling real estate and improvements in order to preserve agricultural land, socialize windfall profit.
- Pay-as-you-grow: include capital costs of services expansions in building permit fees.

Growth restraint tools:

- Require private developments to submit impact statements giving growth cost information.
- Public purchase and leaseback of pasture and hay lands.
- Authorize prohibitory measures at all levels of government: zoning, blocking highway extensions, water controls, moratoriums on permits.
- Require restoration after mineral exploitation.
- Flexible county reorganization with growth (Montana law also permits this).
- Require county zoning.
- Forced joint venture PUD's.
- Require land donation or partial construction for schools, low income housing, open space as well as access and utilities, as prerequisites for all building permits and subdivisions.

Countering decline, fostering growth in rural areas:

- Direct capital and operating subsidies to firms to locate in rural areas, or short term tax exemptions.
- Loan guarantees, interest subsidies, capital or operating subsidies for industrial site development, plan and equipment, state purchase contracts, materials and manpower assembly, subsidies to distribution of output.
- Brokerage activities to promote aid utilization.
- Homestead Act II: resettle urban dwellers in rural areas.
- Require affirmative action for employing local residents.
- State investment in telecommunication for education, employment, cultural opportunities.
- Highway planning
- Low cost loans, subsidies to local co-ops.
- State Housing Authority to develop low and moderate income housing in rural areas.
- Counties pre-develop annexable land.

- Land purchase and leaseback.
- Minnesota dual tax (low on farmlands).
- Wage differentials to professionals.

Funding

- Highway Trust fund to rural public transit
- Deposit State pension fund money in local banks
- Rural Development Corporation
- Deferred tax payment for sale of farm land without change of use

Hibbs, John, "Maintaining transport services in rural areas," Journal of Transportation Economics and Policy 6 10-11 (January, 1972).
Feels bus service a poor second to personal transportation; suggests promoting joint use of cars, more motorbikes.

Kalba, Kas, "Communicable Medicine: Cable TV and Health Services," Socio Economic Planning Services 7:611-632 (December 1973).
Three possible levels of application for cable TV and data transmission in health services proposed: professional education only; public health information; interactive two-way system for patient health records, computer aided diagnosis, "telediagnosis" and "teleconsultation" by which physician could assist treatment by para-professionals in remote local health outlets.

"Telediagnosis" has been used on demonstration basis at Nebraska Psychiatric Institute, University of Kansas Medical Center, four others. Functionally successful but costs prohibitive, mostly for cable.

Suggests solving cost problem by creating multipurpose (not just health) shared time communications utility to make full utilization of cable.

Law and Contemporary Problems Vol. 36, No. 2 (Spring 1971). Special issue on Community Economic Development. Articles on managerial assistance, marketing techniques, effects of the 1969 Tax Reform Act on Community Development Corporations. Emphasis on urban CDC's but some discussion of rural ones.

Madison, Donald L., "Recruiting Physicians for Rural Practice" Health Service Reports 88, pp. 758-762.

Research findings -- rural doctors tend to be older, some of farmers prefer small towns. There is probably only a small "natural" pool of potential recruits.

Tactics to enlarge the pool -- exposing medical students to rural practice and "community medicine" projects.

Conditional education loan forgiveness upon service in rural area -- several Southern states after WW2 (half chose to repay part -- 74% did some service -- less than 18% stuck)

Material incentives: province of Ontario offers guarantee or bonus, small towns have offered home, car, building. Sears -- AMA, Vermont Regional Medical Care abandoned, considered failures.

Closed areas: U.K.

Direct conscription: U.S. Army, less developed countries

Indirect conscription: Indian Health Services, PHS.

Suggests "incentive of an organized system" - prepaid services group practices, rural neighborhood health centers -- view physicians as professionals not entrepreneurs.

Noble, Brian J., "How to Improve Rural Transportation Systems," Appalachia 5:18-25 (April 1972)

Mostly operational (not policy) suggestions, like using semi-retired people as part-time drivers, up to computer-aided demand-responsive service (!)

Raymond, Richard "The interregional brain drain and public education" Growth and Change 4, #3 pp. 28-34 (July 1973).

Disputes human capital assumption that value of human capital equals cost of education to create it.

Policy of lowering educational spending may reduce outmigration but does not retain externalities, community surplus or excess tax, and will add to surplus of unskilled labor, increasing unemployment and lowering of incomes. However, there is little evidence that education will stimulate development: a necessary but not sufficient condition. There is a long "gestation of investment" in education making it hard to compete with other local public investments.

Seobire, Grant M., "Policies to increase the supply of physicians in rural communities," American Economist 16:37-44 (Fall 1972).

Not available in Berkeley. Published at Department of Economics, University of Wyoming, Laramie, 82070 by Dr. Curtis Cramer.

Southern Conference on Gerontology. Area-Wide Planning for Independent Living for Older People (conference report) Carter C. Osterburd ed, 1973, University of Florida, Pr. -- Florida University Center for Gerontological Studies.

Not reviewed: looks interesting.

Technology Review, "You gonna get 'em down on the farm?" January, 1975 p. 53.

"In a study now under way for the Department of Housing and Urban Development, Dr. (Peter) Goldmark and his colleagues identified five drawbacks to rural life which can be alleviated by improved communications systems: lack of jobs, inadequate health care, poor educational facilities, limited cultural and recreational facilities, and lack of opportunity for people of like interests to get together."

U.S. Advisory Commission on Intergovernmental Relations, Financing Schools and Property Tax Relief: A State Responsibility, January 1973 (a Commission Report, A-40).

Not reviewed.

U.S. Advisory Commission on Intergovernmental Relations, State Action on Local Problems 1972, Washington, D.C.: G.P.O., April, 1973.

Summarizes State actions on home rule, new jurisdictional options, inter-local cooperation, consolidation and selected specific problem areas.

U.S. Department of Agriculture, Economic Research Service, "An economic analysis of the Iowa rural renewal area," Agricultural Economics Reports, #181, 1970.

Found limited improvement, but need new methods to double rate of job growth in 60's for 70's. Proposes (1) employment in manufacturing sector not related to agriculture, (2) comprehensive multi-county plan for housing, water, sewage disposal, medical and educational services.

U.S. Department of Agriculture, Rural Development Service and Economic Research Service, Health Services in Rural America, Agriculture Information Bulletin #362.

Summary of legislation through early 1974.

U.S. Senate Select Committee on Equal Educational Opportunity, Education in Rural America (equal educational opportunity hearings part 15, 1971, 6327-6599) 92nd Congress, 1st Session, Washington: G.P.O. 1971.

U.S. Senate Special Committee on Aging: Older Americans in rural areas: hearings, parts 1-12, 91st Congress, 1st and 2nd Sessions, September 1969-October 1970.

White, Fred and Luther Tweeten, "Optimal school district size emphasizing rural areas," Journal of Agricultural Economics 55:1, pp. 45-53 (February 1973).

"Cost of providing elementary and secondary education is estimated for rural areas of Oklahoma. Unit cost curves are derived for instruction, plant operation and maintenance, buildings, equipment, and transportation. Optimal school district size, derived by combining these unit cost curves, is found to vary by educational program and student density." Optimal number of students became smaller with lower density due to rising importance of transportation cost, below 300 in average daily attendance for a student density of 0.6 or less per square mile, such as would characterize much of the Region.

_____, "Internal economics of rural elementary and secondary schooling," Socio-Economic Planning Sciences 7:353-369 (August 1973).

Wicks, John H., "Recent court decisions and Montana school finances" Montana Business Quarterly 11:27-35 (Winter 1973).

Proposes some alternative financing formulas to present school funding to comply with the standards of equity laid down in Serrano vs. Priest and Rodriguez vs. San Antonio, estimates their effects upon property taxes and value on the assumption taxes will be fully capitalized.

Wrigley, Robert L., Jr., "Small cities can help revitalize rural areas." The author is an EDA official. He advocates "achieving a more balanced national distribution of population in the future through the revitalization of rural areas. It is suggested that (i) rural

development activities be focused on these "small cities" -- places of ten thousand to fifty thousand population -- that have locational and other assets on which to build, and (2) the basic unit for planning be multi county 'districts.'" Acknowledges but opposes view of B.J.L. Berry and others that "few cities of less than fifty thousand have qualities that make them candidates for public expenditure."

Origin	State	North Dakota					Destination			Rest of U.S.			
		SEA#1	SEA#2	SEA#3	SEA#4	SEA#5	SEA#1	SEA#2	SEA#3		SEA#4	SEA#5	
North Dakota	1	-	2,565	1,259	1,375	169	780	371	458	92	80	96	8,636
North Dakota (Bismarck)	2	1,530	--	3,489	2,755	544	559	682	436	211	121	346	12,851
North Dakota (Minot)	3	924	3,051	--	7,384	1,244	370	810	235	84	128	279	31,818
North Dakota (Grand Forks & Fargo)	4	554	1,222	2,393	--	821	315	429	72	5	115	210	35,181
North Dakota	5	263	241	873	1,503	-	23	12	4	5	0	0	4,384
Montana (Missoula)	1	181	166	202	164	0	--	4,919	2,971	821	212	452	41,284
Montana (Great Falls)	2	462	509	480	449	55	10,755	--	4,163	969	232	585	38,035
Montana (Billings)	3	184	146	188	19	42	3,559	2,209	--	1,043	310	1,065	13,877
Montana	4	59	55	49	5	0	1,673	1,146	1,627	--	117	456	3,559
Wyoming (Casper)	1	70	44	14	60	0	374	150	328	67	--	5,321	24,500
Wyoming (Cheyenne)	2	146	133	353	30	68	875	631	1,210	365	8,581	--	27,695
Rest of World		2,785	5,449	15,827	23,098	2,169	31,124	20,459	8,505	1,987	18,616	26,538	--



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